**Module 5** **: Mernstack – HTML5**

(*Theory Assignment*)

**Question 1:** Difference b/w HTML & HTML5?

**Ans:-**

| **Feature** | **HTML** | **HTML5** |
| --- | --- | --- |
| **Version** | Older versions like HTML 4.01 | Latest version of HTML |
| **Doctype Declaration** | Long and complex | Simple: <!DOCTYPE html> |
| **Multimedia Support** | Requires plugins (e.g., Flash)  For audio/video. | Built-in support for audio and video |
| **New Elements** | Limited semantic elements | Introduces semantic tags like <header>, <footer>, <article>, <section> |
| **Form Enhancements** | Fewer input types | New input types like email, date, range, etc. |
| **APIs and Features** | No support for APIs | Supports APIs like Geolocation, Web Storage, Canvas, and Drag-and-Drop |
| **Mobile and Responsive Design** | Less support | Designed with mobile and modern devices in mind |
| **Browser Compatibility** | Works with older browsers | Works with modern browsers, backward compatible |

**Question 2:** What are the additional tags used in HTML5?

**Ans:-**

* HTML5 introduced several **new semantic, multimedia, and functional tags** to improve structure and user experience.Here’s a list of commonly used additional tags in HTML5:
* **Semantic Tags** (for better structure and readability):

| **Tag** | **Description** |
| --- | --- |
| <header> | Defines the header section of a page or section |
| <footer> | Defines the footer section |
| <article> | Represents a self-contained piece of content |
| <section> | Defines a section in a document |
| <nav> | Represents navigation links |
| <aside> | Defines content aside from the main content (like a sidebar) |
| <main> | Represents the main content of the document |
| <figure> | Wraps media like images with captions |
| <figcaption> | Caption for the <figure> element |
| <mark> | Highlights text |
| <time> | Represents a date or time value |

* **Multimedia Tags:**

| **Tag** | **Purpose** |
| --- | --- |
| <audio> | Embeds audio files |
| <video> | Embeds video files |
| <source> | Specifies media source for <audio> or <video> |

* **Graphics and Web Apps Tags:**

| **Tag** | **Purpose** |
| --- | --- |
| <canvas> | Used to draw graphics via scripting (usually JavaScript) |
| <svg> | Embeds Scalable Vector Graphics (2D graphics) |

* **Form-related Tags:**

| **Tag** | **Purpose** |
| --- | --- |
| <datalist> | Provides autocomplete options for input fields |
| <output> | Represents the result of a calculation |
| <progress> | Displays the progress of a task |
| <meter> | Shows a scalar measurement (like disk usage) |

(*Lab Assignment*)

**Task :** Create a audio video tag

• Also applied properties like muted loop autoplay

• Create some shape using canvas tag in html **// not completed yet**

• Create some shape using svg tag in html **// not completed yet**

**Code :-**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Audio and Video Tag Example</title>

<style>

body {

font-family: "Segoe UI", Tahoma, Geneva, Verdana, sans-serif;

background-color: #f4f6f8;

margin: 0;

padding: 0;

}

.main {

height: auto;

width: 850px;

border: 2px solid #ccc;

margin: 30px auto;

background-color: #ffffff;

box-shadow: 0 8px 16px rgba(0, 0, 0, 0.1);

border-radius: 10px;

}

.main-head {

height: 60px;

border-bottom: 2px solid #4a90e2;

background-color: #4a90e2;

color: white;

display: flex;

align-items: center;

justify-content: center;

border-top-left-radius: 10px;

border-top-right-radius: 10px;

}

.mix {

display: flex;

gap: 20px;

padding: 20px;

justify-content: center;

}

.main-audio, .main-video {

height: auto;

width: 400px;

border: 2px solid #ddd;

border-radius: 10px;

background-color: #f9f9f9;

box-shadow: 2px 4px 12px rgba(0, 0, 0, 0.05);

}

.audio-head, .video-head {

height: 50px;

background-color: #e0f7fa;

color: #00796b;

display: flex;

align-items: center;

justify-content: center;

font-weight: bold;

border-bottom: 2px solid #b2dfdb;

border-top-left-radius: 10px;

border-top-right-radius: 10px;

}

.audio, .video {

padding: 15px;

display: flex;

align-items: center;

justify-content: center;

background-color: #fff;

border-bottom-left-radius: 10px;

border-bottom-right-radius: 10px;

}

audio, video {

width: 100%;

border-radius: 5px;

}

</style>

</head>

<body>

<div class="main">

<div class="main-head">

<h2>Audio and Video Tags</h2>

</div>

<div class="mix">

<div class="main-audio">

<div class="audio-head">

<h4>🎵Audio</h4>

</div>

<div class="audio">

<audio controls loop muted autoplay>

<source src="image/Title Track Saiyaara 128 Kbps.mp3" type="audio/mpeg">

</audio>

</div>

</div>

<div class="main-video">

<div class="video-head">

<h4>🎬Video</h4>

</div>

<div class="video">

<video width="335" height="280" muted loop autoplay controls>

<source src="image/Barbaad Song \_ Saiyaara \_ Ahaan Panday, Aneet Padda \_ The Rish \_ Jubin Nautiyal \_ In Cinemas 18 July.mp4" type="video/mp4">

</video>

</div>

</div>

</div>

</div>

</body>

</html>